

CLAIMS

What is claimed is:

- 1 1. A system for providing secure communication of a voice call placed across a
2 PSTN as a data call, wherein secure is understood to refer to the use of encryption to provide
3 privacy and security, a voice call is understood to refer to a call using a bearer service that is
4 circuit mode, with speech or 3.1 kHz audio information transfer capability, and user information
5 layer 1 protocol G.711 mu-law or A-law, and a data call is understood to refer to a call using a
6 bearer service that is circuit mode, with either 64Kbps information transfer rate or 64Kbps
7 information transfer rate adapted to 56Kbps, that uses unrestricted or restricted digital
8 information transfer capability, said system comprising:
 - 9 a security policy including rules defining a call to be conducted in a secure mode;
 - 10 a VPSTN for implementing said rules in said security policy and initiating encryption of
11 the call using a secure mode selected from a predetermined set of secure modes and placing the
12 call across the PSTN;
 - 13 said VPSTN including an in-line device for intercepting, identifying, modifying, and
14 forwarding the setup message of the call identified by said security policy to be conducted in a
15 secure mode;
 - 16 said identification of the call setup message including determining whether the call setup
17 message includes a request for bearer capability to support a voice call;

18 said modification of the call setup message including changing the call setup message
19 from a request for bearer capability to support a voice call to a call setup message with a request
20 for bearer capability to support a data call;
21 said forwarding of the call setup message including passing the call setup message on
22 toward the intended destination.

1 2. The system as defined in Claim 1 wherein said VPSTN also provides for initiating
2 an encryption of the voice call using another secure mode selected from said predetermined set of
3 secure modes and placing another data call should a prior attempt to place the call across the
4 PSTN as a data call fail.

1 3. The system as defined in Claim 2 wherein said VPSTN also provides for initiation
2 of encryption of the voice call in a voice secure mode should all attempts at placing the call
3 across the PSTN as a data call fail.